



**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Serial No. : 09/925,673
Applicants : Masakatsu KANEKO et al.
Filed : August 9, 2001
For : NOVEL NUCLEOSIDE AND
OLIGONUCLEOTIDE ANALOGUES
Art Unit : 1623
Examiner : Howard Owens, Jr.
Docket No. : 01376CIP/HG
Customer No.: 01933
Confirmation No.: 4630

MAIL STOP RCE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

S I R :

The above-identified application was allowed. The Issue Fee is not being paid, and a RCE is being filed concomitantly herewith.

Submitted herewith are the following:

- (1) a copy of Bioorganic & Medicinal Chemistry Letters, 9 (1999), 515-518;
- (2) a copy of Chem. Commun., (1999), 2423-2424;

Express Mail Mailing Label
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Date of Deposit: April 13, 2004
I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 with sufficient postage on the date indicated above and is addressed to the Commissioner for Patents,
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Alexandria, VA 22313-1450


Dorothy DeFrancesco

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper to Account No. 06-1378.

(3) copies of the summaries of Posters No. 32 and No. 33 of the 7th Symposium of Antisense;

(4) copies of Martin, Helv. Chim. Acta., 1995, Vol. 78, pp. 486-504 and Hegemann et al., Pharmacol. of the Skin, 1992, Chapter 22, pages 357-368;

(5) a copy of USP 6,268,490, which is a related family member of WO 98/39352, which is of record in this application; and

(6) Forms PTO/SB/08A and PTO/SB/08B.

The Martin and Hegemann et al. publications were previously submitted, but were not considered by the Examiner.

The Office Action of July 29, 2003 returned a copy of applicants' Form PTO/SB/08B (6 sheets dated November 7, 2001) with the Examiner's initials in the left column next to each of the cited publications, except for the following two publications, which the Examiner drew lines through:

MARTIN, "A New Access to 2'-O-Alkylated Ribonucleosides and Properties of 2'-O-Alkylated Oligoribonucleotides", Helv. Chim. Acta., 1995, Vol. 78, pp. 486-504 (cited on sheet 2 of the Form PTO/SB/08B dated November 7, 2001, a copy of which is enclosed); and

HEGEMANN et al., "BIOCHEMICAL PHARMACOLOGY OF PROTEIN KINASE C AND ITS RELEVANCE FOR DERMATOLOGY", Pharmacol. of the Skin, 1992, Chapter 22, pp. 357-368 (cited on sheet 3 of the Form PTO/SB/08B dated November 7, 2001, a copy of which is enclosed.).

No reasons were set forth in the July 29, 2003 Office Action as to why the above two publications were not initialed by the Examiner.

The MARTIN publication is in German, but includes on the first page thereof an English-language abstract which is reproduced as follows:

"A New Access to 2'-O-Alkylated Ribonucleosides and Properties of 2'-O-Alkylated Oligoribonucleotides

A general access to 2'-O-alkylated ribonucleosides using the key intermediate 5 is presented. The incorporation of 2'-O-ethyleneglycol- and 2'-O-glycerol-substituted (i.e., 2'-O-(2-hydroxyethyl)- and 2'-O-(2,3-dihydroxypropyl)-substituted) ribonucleosides into oligonucleotides affords a new generation of oligonucleotides with high affinity for RNA, high specificity, and increased nuclease resistance."

The MARTIN publication is also discussed in the paragraph bridging pages 11 and 12 of the specification as follows:

"Preferred 2'-groups of the sugar include H, OH, F, and O--, S--, or N-alkyl groups. One particularly preferred group includes 2'-methoxyethoxy[2'--O--CH₂CH₂OCH₃, also known as 2'-O-(2-methoxyethyl) or 2'-MOE] (Martin et al., Helv. Chim. Acta., 1995, 78, 486), i.e., an alkoxyalkoxy group."

It is respectfully submitted that the above information concerning the MARTIN publication provides a concise explanation

of the relevance of the MARTIN publication in compliance with 37 CFR 1.98(a)(3)(i).

The HEGEMANN et al. publication (which is discussed in the paragraph bridging pages 21 and 22 of the specification) is Chapter 22 in a book entitled "Pharmacology of the Skin", edited by Hasan Mukhtar. It is considered that the Examiner may have not realized that the HEGEMANN et al. citation was included in this book.

It is respectfully requested that the attached publications be considered and made of record.

Respectfully submitted,



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RSB/ddf

Encs.: Forms PTO/SB/08A and PTO/SB/08B and copies of each of the publications identified therein.

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PTO/SB/08A (08-00)

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for Form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

APR 13 2004

Sheet

1

of

2

Application Number

09/925,673

Filed

August 9, 2001

First Named Inventor

Masakatsu KANEKO

Group Art Unit

1623

Examiner Name

Howard Owens, Jr.

Attorney Docket Number

01376CIP/HG

U.S. PATENT DOCUMENTS

Exam. Inits [*]	Cite No ¹	Document Number	Kind Code ²	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion
		6,268,490	B1	IMANISHI et al.	07-31-2001	

FOREIGN PATENT DOCUMENTS


Exam Inits [*]	Cite No ¹	Offc ³	Document Number ⁴	Kind Code ⁵	Name of Patentee or Applicant	Publication Date MM-DD-YYYY	Relevant Portion	T ⁶

Examiner
SignatureDate
Considered

* EXAMINER: Initial if document considered, whether or not citation is in conformance with MPBP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Place a check here if English translation is attached.

DATE MAILED: April 13, 2004

Substitute for Form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT 	Application Number		09/925,673		
	Filing Date		August 9, 2001		
	First Named Inventor		Masakatsu KANEKO		
	Group Art Unit		1623		
	Examiner Name		Howard Owens, Jr.		
Sheet	2	of	2	Attorney Docket Number	01376CIP/HG

OTHER DOCUMENTS - NON-PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of article, title of item, date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		<p>Satoshi OBIKA et al., "Preparation and Properties of 2',5'-Linked Oligonucleotide Analogues Containing 3'-O,4'-C-Methylenribonucleosides", <u>Bioorganic & Medicinal Chemistry Letters</u>, 9 (1999), 515-518.</p> <p>S. OBIKA, D. NANBU, K. MORIO and T. IMANISHI, "Synthesis and Properties of Oligonucleotides Containing Novel Bicyclic Nucleosides with a Fixed N-Form Sugar Puckering", Summary of Poster No. 32 of the 7th Symposium on Antisense, November 21, 1997, Chiba City, Japan.</p> <p>S. OBIKA, K. MORIO, D. NANBU and T. IMANISHI, "Duplex and Triplex Formation of 2', 5'-Linked Oligonucleotide Analogs Having Restricted Sugar Puckering in S-Conformation", Summary of Poster No. 33 of the 7th Symposium on Antisense, November 21, 1997, Chiba City, Japan.</p> <p>MARTIN, "A New Access to 2'-O-Alkylated Ribonucleosides and Properties of 2'-O-Alkylated Oligoribonucleotides", <u>Helv. Chim. Acta.</u>, 1995, Vol. 78, pp. 486-504.</p> <p>HEGEMANN et al., "BIOCHEMICAL PHARMACOLOGY OF PROTEIN KINASE C AND ITS RELEVANCE FOR DERMATOLOGY", <u>Pharmacol. of the Skin</u>, 1992, Chapter 22, pp. 357-368.</p> <p>S. OBIKA, K. MORIO, Y. HARI and T. IMANISHI, "Facile Synthesis and Conformation of 3'-O,4'-C-Methylenribonucleosides," <u>Chem. Commun.</u>, 2423-2424 (1999).</p>	
Examiner Signature		Date Considered	

* EXAMINER: Initial if document considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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